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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Edward L. Simonds

SERIAL NO.: 10/085,969

FILED: February 28, 2002

TITLE: FLUID PRESSURE REGULATOR

Assistant Commissioner for Patents
Washington, D.C. 20231

AFFIDAVIT UNDER 37 CFR 1.98(a)(3)

The undersigned states that the prior art patents submitted with the Information Disclosure Statement attached hereto may have relevance as it concerns the above patent application. This relevance, as presently understood by the undersigned is as follows:

JA 61-83492(A), Hiramatsu. A ring 53, being a push-up member, is mounted to the bottom of a vane containing groove 50 on one end surface site of an inner rotor 30, and the bottom surface of a vane 44 is adapted to make slide contact with the ring 53 when the forward end of the vane 55 makes slide contact with the inner peripheral surface of a cam ring 29 at the small part of the cam ring 29. This prevents the vane 44 from being moved further to the inner peripheral side of the inner rotor 30. Thus, even if a pressure difference between the forward end and the bottom part of the vane 44 is produced at the small part of the cam ring

CERTIFICATE OF MAILING

I hereby certify that this Affidavit is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231, on this 12 day of April, 2002, with adequate postage affixed thereto.

29, since the vane 44 makes contact with the ring 53 and is prevented from being further moved to the inner side of the containing groove 50, the forward end of the vane 44 is always brought into slide contact with the inner peripheral surface, and eliminates a fear of an oil pressure being escaped due to formation of a gap. This enables stable provision of desired torque, and improves reliability of a pump.

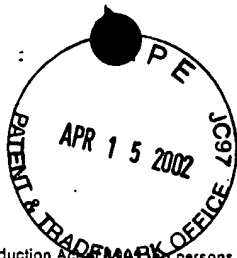
JA 01-290924(A), Hosoyama. A guide body (g) is fixed inside a casing C and the interval between the outer peripheral edge of the guide body (g) and the inner peripheral edge (i) of the casing C is equalized. A circular rotor R and an output shaft 13 are fixed on one axis. Blades 14 provided on the rotor R are brought into contact slidingly with the inner peripheral edge (i) of the casing. Thereby, the balance of the whole engine can be kept reducing vibration.

DT 2029 280, Offenlegungsschrift. Consists of a casing with an internal cylindrical chamber, a rotor operating in this, with sliding vanes, and with casing end covers with inlet and discharge openings. The rotor is disposed centrally in the internal chamber which is divided by a partition vane mounted in a groove in the chamber wall. The chamber is further divided by movable vanes mounted in the rotor.

Respectfully submitted,

By 

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PTO/SB/08A (10-01)

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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Substitute for form 1449A/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	10/085,969
		Filing Date	February 28, 2002
		First Named Inventor	Edward L. Simonds
		Art Unit	
		Examiner Name	
Sheet 1 of 2	Attorney Docket Number		

U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code ² (if known)			
		US-5,030,074	7/9/91	Sakamaki et al	
		US-3,988,083	10/26/76	Shimizu et al	
		US-4,998,868	3/12/91	Sakamaki et al	
		US-2,636,480	4/28/53	Becker	
		US-5,011,390	4/30/91	Sakamaki et al	
		US-5,002,473	3/26/91	Sakamaki et al	
		US-6,024,549	2/15/00	Lee	
		US-5,816,789	10/6/98	Johnson	
		US-5,961,310	10/5/99	McClure	
		US-5,551,854	9/3/96	Edwards	
		US-1,492,456	4/12/23	Hansen-Ellehammer	
		US-3,804,562	4/16/74	Hansson	
		US-4,789,317	12/6/88	Waser et al	
		US-5,533,566	7/9/96	Fineblum	
		US-5,284,427	2/8/94	Wacker	
		US-2,671,411	3/9/54	Rhine	
		US-5,967,016	10/19/99	Simonds	
		US-5,974,943	11/2/99	Simonds	
		US-4,712,789	12/87	Brilando	
		US-4,757,988	07/88	Szymiski	

FOREIGN PATENT DOCUMENTS					
Examiner Initials	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Country Code ³ - Number ⁴ - Kind Code ⁵ (if known)			
		JA 61-83492 (A)	9/29/84	Hiramatsu	
		JA 01-290924 (A)	5/18/88	Hosoyama	
		DT 2029 280	6/13/70	Offenlegungsschrift	
		WO 82/01215	4/15/82	Richter, Hans	
		GB 392,999	6/1/33	Warren, et al	

Examiner Signature	Date Considered
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

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		Number - Kind Code ³ (if known)			
		us-4,902,001	2/90	Balbo	
		us-5,461,863	10/95	Simonds	
		us-5,617,936	4/97	Nemoto	
		us-6,203,041	3/01	Helm	
		us-4,898,524	2/90	Butzen	
		us-3,938,426	2/17/76	Hunter	
		us-1,115,470	10/1914	Lipman	
		us-4,986,402	1/91	Neuwirth	
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